

- REVISED -

# An MPA Network for the Central Coast

## Package 2



Goals by Sub-Region  
&  
Site Rationales

February 15, 2006

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## **Pigeon Point to Capitola**

### **Overall Goals for Sub-Region:**

- Provide ecologically meaningful MPA protection in an area of the Central Coast Study Area (CCSA) that is currently unrepresented in MPAs.
- Protect seabird and marine mammal forage, roosting and breeding areas around Año Nuevo Point and specifically Año Nuevo Island.
- Protect the range of habitats (across depth range) and biological communities that are representative of this sub-region in SMRs.
- Protect some of the highly productive waters of the Davenport upwelling cell in an SMR that fully complies with the Master Plan Framework (MPF) Scientific Guidelines.
- Improve research and study opportunities by siting an MPA adjacent to UC Santa Cruz.
- Improve educational and non-consumptive use values of the ocean by siting MPAs in areas with high visitation rates.

**Negotiations and Evolution of Proposal:** From a conservation perspective, the ideal set of MPAs for this area would include a large SMR centered on Point Año Nuevo and a second SMR protecting the extensive rocky reef that lies off the City of Capitola. However, during the RSG process, consumptive stakeholders expressed strong concerns about the potential socio-economic impacts of such proposals. We have worked extensively with recreational fishermen and commercial squid fishermen in crafting the MPAs proposed below. These MPAs address some of the key conservation goals for this sub-region while eliminating most of the socio-economic concerns that were raised by the fishing community.

## **Año Nuevo State Marine Reserve**

**Fishing Regulations:** No take.

**Overall Goal:** Protect the full range of species and habitats that are representative of this sub-region including rocky cliffs, estuarine areas, intertidal zones, rocky reefs, shale beds and other hard ocean substrates, sandy or soft ocean substrates, and Bull Kelp forests. Protect productivity and biodiversity hotspot in central California (the Davenport upwelling cell). This SMR would protect some of the critical forage area for a variety of seabirds including listed marbled murrelets. This SMR is large enough to effectively function as a component of a network. The northern “tail” of the proposed SMR improves protection at the site of an existing seasonal closure and is designed to protect a diverse intertidal community and to provide a minimal ¼ mile buffer for a variety of seabird and marine mammal species that inhabit Año Nuevo Point and Island.

**Socio-Economic Considerations:** The proposed Año Nuevo State Marine Reserve could result in some displacement of the squid and Dungeness crab fisheries. However, the boundaries of this SMR were drawn specifically to minimize impacts to the squid fishery (thus the triangle shape of the SMR) and data shows that important squid grounds in adjacent areas (the lee of Franklin Point and between the Santa Cruz City limits and the town of Davenport) would remain open to fishing in this proposal. Although some crabbing occurs in the deeper water portions of the proposed SMR, far more heavily utilized crab grounds to the north of Point Año Nuevo are

unaffected by this proposal. The SMR was designed to avoid impacts to recreational fishing. Recreational fishermen chose to either fish closer to Santa Cruz or go to the preferred fishing spot offshore of Point Año Nuevo itself, which would remain open to fishing. See Regional Profile maps 8 & 9. Under most conditions it is dangerous for boats to get close to the shoreline and rocks in this high wave energy area, therefore little fishing occurs within ¼ mile from shore. However, the potential disruption caused by even a few vessels fishing close to shore can cause very severe impacts to nesting seabirds (disturbance related to lights, noise, entanglement).

### **Baldwin to Natural Bridges State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Protect nearshore and intertidal habitat and communities and enhance research and educational values at site with high benthic invertebrate diversity adjacent to a university marine laboratory and to two popular State Parks. This area has excellent public access, ample parking, and high visitation rates. Adjacent Natural Bridges State Park offers educational opportunities through an existing docent program, interpretive signage, and a visitor center. Existing baseline monitoring exists for this site and ongoing intertidal monitoring occurs in the proposed SMR (CRANE and PISCO).

**Socio-Economic Considerations:** This tiny SMR covers over 4 miles of shoreline but extends only to a depth of 20 feet and is not expected to impact existing fishing activities in any significant way. Conservation and research interests would be far better served by an SMR in this area that extended into deeper waters and protected a wider range of species and habitats (a minimum of one mile from shore). Agreement to limit this to an intertidal site was a significant concession to fishing interests on the RSG that was made in an effort to maintain virtually all of the area in proximity to Santa Cruz harbor open without restriction.

### **Capitola to Monterey Breakwater**

**Overall Goal for Sub-Region:**

- Provide meaningful protection for important deepwater and estuarine habitats that are currently not represented or are underrepresented in MPAs in the CCSA.
- Improve the conservation value of the existing Elkhorn Slough SMR.
- Improve protection for very high quality deepwater sites (Soquel Canyon and Portuguese Ledge) including submarine canyon habitat representing a wide range of depths along with the species assemblages and the full range of ecosystem functions associated with these habitats including protection of forage species for predators (fish, seabird and marine mammal).
- Restore deepwater rockfish populations at sites depleted by historic fishing activities.
- Provide an opportunity to compare the impacts of a fully protected deepwater SMR to a SMCA that allows both limited pelagic fishing.
- Site MPAs to take advantage of existing baseline monitoring (via submersible surveys).

**Development and Evolution of Proposal:** The proposal for an expanded Elkhorn SMR was developed after conversations with representatives from the Elkhorn Slough Estuarine Research

Reserve and scientists who have performed long-term monitoring in this area. We adopted the fishing community's proposal for the Moro Cojo SMR. The deepwater sites were selected based on information from scientists who have explored the Monterey Submarine Canyon in submersibles and both sites have existing baseline monitoring data. Recognizing the importance of Soquel Canyon to both recreational and commercial salmon fisheries, we have proposed this area as a SMCA that would allow salmon and albacore fishing. Fishing representatives have raised some concerns about prohibitions on take of baitfish in the deepwater MPAs. These species (such as herring, mackerel, sardines and anchovies) provide critical prey resources to fish, seabirds and marine mammals and fishing opportunities for such species abound in adjacent areas not proposed for MPA protection.

### **Elkhorn Slough State Marine Reserve**

**Regulations:** No-take.

**Overall Goal:** Protect the range of rare coastal wetland and estuarine habitats including eelgrass, salt marsh mudflats, and tidal channels. The proposed SMR would improve protection for important fish nursery grounds and roosting, forage, and haul-out areas for birds and marine mammals including many species of concern. Elkhorn Slough SMR would also provide a replicate for the MPAs proposed for Morro Bay Estuary. Large estuaries have been identified as areas of regional biodiversity significance in the Regional Profile and are called out for additional protection in the MPF.

**Socio-Economic Considerations:** Very little fishing occurs with the Elkhorn Slough itself and there are many opportunities to fish in the nearby area. Extending the SMR to include the Vierra mudflat might affect some historical bait collection. However, the value of the native invertebrates to the ecosystem outweighs their value as bait. Shorefishing opportunities exist at the nearby State Beaches and at Moss Landing Harbor. By protecting an important fish nursery and wildlife viewing area, the expanded Elkhorn Slough SMR is expected to contribute to positive socio-economic impacts for all users.

### **Moro Cojo State Marine Reserve**

**Regulations:** No-take.

**Overall Goal:** Protect the range of wetland and estuarine habitats including eelgrass, salt marsh mudflats, and tidal channels.

**Socio-economic considerations:** This MPA was recommended by fishing interests. Because no known fishing or invertebrate collection occurs in this area, the value of making this area an MPA may be negligible.

### **Soquel Canyon State Marine Conservation Area**

**Fishing Regulations:** Take of all living marine resources is prohibited except take of salmon and albacore.

**Overall Goal:** The proposed SMCA is specifically designed to include an entire branch of the Monterey Submarine Canyon within an MPA. This SMCA would improve protection for high value representative submarine canyon habitat across a wide range of depths (from 75 meters to over 1300 meters) as well as the biological communities associated with such habitat. Notably, Package 1 proposals for MPAs in the Monterey Submarine Canyon limit any improved protection to very deep area (more than 500 meters) and thus do not protect the same range of habitat and species diversity. This SMCA is designed to improve protection for depleted deepwater rockfish species such as bocaccio, canary and yelloweye rockfish high quality natural refugia and rockfish habitat, and help restore depleted deepwater rockfish species by protecting large individuals of these species (which have been documented in this specific area by submersible surveys). This site is within the top 20<sup>th</sup> percentile for fish and seabird diversity. The proposed SMCA meets the Regional Profile's description of an area of regional biological significance based on high bathymetric complexity (MPF p.31). This site was proposed for protection in the Draft Initial Concepts, the Revised Draft Initial Concepts. Portions of the MARS submarine cable will be located in this SMCA, providing a unique opportunity for ongoing monitoring of this MPA.

**Socio-Economic Considerations:** From a conservation and research perspective, Soquel Canyon is an ideal site for a deepwater SMR as it contains an entire branch of the Monterey Submarine Canyon across a range of habitat depths and quality that is not found anywhere else in the Central Coast Study Area. We originally proposed this area as an SMR. However, Soquel Canyon is also a favored fishing spot for both the commercial and recreational salmon fleets. In a significant concession to fishing interests on the RSG, we are proposing this area as an SMCA and not an SMR. We hope that this area will serve as a comparison for monitoring purposes with similar habitats protected in the deepwater portions of the proposed Portuguese Ledge SMR which may allow some analysis of any potential impacts associated with salmon and albacore fishing in an otherwise protected MPA.

### **Portuguese Ledge State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Restore depleted benthic species (especially deepwater rockfish) and protects high quality benthic habitat and pelagic offshore habitats and the biological communities associated with these habitats. The proposed SMR would protect the full range of ecosystem functions and processes including trophic interactions including seabird and marine mammal forage. The area includes high quality habitat, in an upwelling zone, within an area that was historically abundant with fish but is now depleted. The proposed SMR is within the top 20<sup>th</sup> percentile for seabird density and diversity and the top 20<sup>th</sup> percentile for fish density. This site includes rocky reef interspersed with soft bottom substrate in a range of depths from approximately 100 meters to over 1600 meters). This SMR fills a gap identified in the current system of MPAs by protecting deepwater habitat including rock, sand and hard canyon wall. According to the 2001 Draft Initial Concepts proposal, this site has been depleted of large groundfish but has excellent habitat, making it a prime candidate for restoration and recovery. This site was proposed for protection in both the Draft Initial Concepts and the revised Draft Initial Concepts.

**Socio-Economic Considerations:** This site is designed specifically to minimize socio-economic impacts because most of the area has already been closed to trawling and to rockfish fishing under Rockfish Conservation Area (RCA) designations. In addition, most of the main stem of the Monterey Canyon remains open to fishing under this proposal, allowing continued fishing in a large area of similar habitat that is easier to access from Moss Landing harbor.

### **Monterey Breakwater to Point Sur**

#### **Overall Goal for Sub-Region:**

- Enhance and restore quality of non-consumptive recreational experience (which has been lost in recent decades due to declining marine life populations) including activities such as scuba diving, kayaking, and shoreline wildlife viewing in area with exceptionally high visitor rates.
- Maintain opportunities for diverse commercial and recreational consumptive activities such as commercial fishing, kelp cutting, and recreational angling and spearfishing
- Respect grassroots and community interest in protecting areas of special interest.
- Protect the range of habitats (across depth range) and biological communities that are representative of this sub-region in SMRs.
- Enhance scientific monitoring opportunities.

**Development and Evolution of Proposal:** The MPAs proposed for this sub-region were selected based on extensive discussions with a wide variety of consumptive and non-consumptives stakeholders. Given the concentrated and potentially conflicting use patterns along the shores of the Monterey Peninsula, we have proposed what is essentially a “zoning” approach in this area. The result is a series of relatively small and shallow MPAs designed to achieve very specific goals, provide access to the full range of users, and spatially separate conflicting uses. Although consumptive stakeholders have raised concerns about the potential impacts of the SMRs proposed for this sub-region, it is important to look at these concerns in context. Package 2 includes less than 10 square miles of the 114 square-mile Monterey Breakwater to Point Sur sub-region in SMRs. The Monterey area SMRs (Cooper SMR, Hopkins SMR and the Asilomar SMR, cover a total of only 1.43 square miles combined. This sub-region is unique within the CCSA in terms of the intensity of use by a variety of stakeholders with legitimate and competing interests. We have tried very hard in this proposal to be fair to all users.

### **Edward C. Cooper State Marine Reserve**

**Boundaries:** From the Monterey Breakwater, including the north wall of the Breakwater, to Hopkins SMR, following the 60-foot contour line.

**Fishing Regulations:** No-take.

**Overall Goal:** Provide a safe, significantly enhanced non-consumptive recreational experience by protecting marine life diversity and density in an area of traditionally high non-consumptive SCUBA diving. This site is the most heavily used dive site on the West Coast (approximately 65,000 diver days per year) and is also the most popular dive-training site for open water

SCUBA certification in the United States. See Regional Profile at 85 and 89. Improve protection and allow restoration for a rockfish nursery area with documented fish diversity.

**Socio-Economic Consideration:** The proposed Edward C. Cooper SMR is expected to result in significant positive socio-economic benefits due to the extraordinarily high non-consumptive values associated with this area. Wildlife watchers, divers, researchers and kayakers, and local tourism businesses are likely to benefit from the proposed SMR. The boundaries of the SMR has been drawn after extensive consultation with affected stakeholders to avoid impacts to the squid fishery and to allow continued recreational fishing in water depths beyond 60 feet. This allows recreational fishing to occur from 60-120 feet even under the existing RCA restrictions. Previous proposals for SMCA buffers that would have extended into deeper waters and for an SMR or other MPA to protect the Monterey Shale Beds located to the east of the Breakwater were withdrawn to accommodate concerns raised by members of the Regional Stakeholder Group representing the interests of small skiff users, spear fishers and CPFV operators. Opportunities for consumptive uses of all kinds would remain open in nearby areas.

#### **Hopkins State Marine Reserve (expansion of existing SMR)**

**Boundaries:** Existing western boundary to Lover's Point, following the 60-foot contour line, and extended seaward to include Hopkins Deep Reef.

**Fishing Regulations:** No take. Existing regulations restricting anchoring within Hopkins SMR would not be extended into the expanded area of this proposed SMR. Anchoring would continue to be allowed at Hopkins Deep Reef.

**Overall Goal:** Expand existing small SMR to protect valued deep reef feature just beyond current Hopkins SMR boundary and area between Hopkins and Lover's Point. Enhance research and recreational use of that reef. Improve conservation value of tiny existing SMR (in combination with adjacent SMRs on East and SMCA on West).

**Socio-Economic Considerations:** See above text for Edward C. Cooper SMR.

#### **Pacific Grove State Marine Conservation Area**

**Boundaries:** From Lover's Point to Asilomar Avenue in Pacific Grove and out to a depth of 60 feet.

#### **Regulations:**

##### **In whole SMCA:**

- a. Commercial take is prohibited except kelp harvesting allowed by hand harvest under harvest plan that allocates take to existing harvesters at rates approximately equal to existing take levels.
- b. No intertidal collection and no poke pole fishing allowed.
- c. No spear fishing contests allowed: Contest is defined as: Any competition involving two or more persons in which persons are ranked, or winners are determined, based on the

size, weight, number of species, type of species, or number of fish taken by means of spearfishing.

In area between Esplanade Street and Lover's Point ONLY:

d. Recreational take of finfish by spear and by hook and line allowed.

**Overall Goal:** Enhance recreational experiences (both consumptive and non-consumptive) of the marine environment in popular SCUBA diving and shore-based wildlife viewing area. Improve protection of existing MPA and respond to community concerns regarding protection of Pacific Grove intertidal and nearshore waters. Protect intertidal communities. Provide continued opportunity for kelp harvesting in area close to abalone farm that uses kelp as feed.

**Socio-Economic Considerations:** This SMCA allows continued kelp harvesting to provide a source of kelp for local mariculture businesses. A portion of this SMCA allows continued recreational fishing from skiffs and kayaks as well as from shore and allows spear fishing in area that the RSG spear fishing representative identified as particularly important (Otter Cove). Recreational fishing is also allowed beyond the 60-foot depth line. Commercial fishing is already prohibited in this area, therefore the proposed SMCA will not impact commercial fishing. Siting an MPA in an area with high non-consumptive use, visitation, and community value increases positive socio-economic impacts for these users.

### **Asilomar State Marine Reserve**

**Boundaries:** From Asilomar Avenue westward around Point Pinos, and southward to the Pacific Grove city limits line at north Moss Beach and to an offshore depth of 60 feet.

**Fishing Regulations:** No-take.

**Overall Goal:** Protect high diversity intertidal habitat and nearshore kelp forest and range of species characteristic of this area and provide enhanced non-consumptive recreational experience in area with excellent public access. Improve protection of existing MPA and respond to community concerns regarding protection of Pacific Grove intertidal and nearshore waters.

**Socio-Economic Concerns:** Existing SMCA at this site already excludes commercial fishing. Therefore the proposed SMR will not impact commercial fishing. Opportunities for recreational fishing (from shore, skiff or other vessel or by spear) remain available in adjacent area and in waters deeper than 60 feet. Siting SMR in area with high non-consumptive use, visitation, and community value increases positive socio-economic impacts for these users. The City of Pacific Grove has a long history of supporting improved protection for this area.

### **Carmel Pinnacles State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Proposed SMR would protect the largest pinnacle structure in the Monterey and Carmel Bays, plus similarly high-relief vertical rocky habitat in shallower nearshore water. Area includes both of both Bull and Giant Kelp and unique hydrocoral communities in relatively

accessible area. SMR would both allow restoration of area heavily depleted by recreational fishing and enhance non-consumptive recreational experience at one of the most popular sites for dive boats.

**Socio-Economic Considerations:** This is the most popular charter boat SCUBA dive destination in the Monterey Carmel area. The proposed SMR would optimize socio-economic benefits by enhancing recreational and non-consumptive values especially for the commercial dive boat fleet operating from Monterey Harbor. Spearfishing and CPFV RSG representatives raised concerns about the potential impacts of an earlier (larger) SMR proposed for this area. The size of this SMR was reduced in response to these concerns and most of Stillwater Cove was left out of the SMR to maintain a traditional access site for spear fishing. Notably, CPFV vessels can still operate to the north and south of the proposed SMR; spearfishing opportunities remain available at the Monterey Shale Beds, between Lover's Point and Esplanade Street, between Moss Beach and Cypress Point and in most of Carmel Bay. Areas more heavily used by the live fish fishery (between Point Joe and Cypress Point) remain open to commercial fishing.

### **Carmel Bay State Marine Conservation Area**

#### **Fishing Regulations:**

- a. Take of all living marine resources is prohibited except the recreational take of finfish by hook and live or spear and the commercial take of kelp by hand harvest.
- b. No spearfishing contests allowed: A contest is defined as: Any competition involving two or more persons in which persons are ranked or winners are determined based on the size, weight, number of species, type of species, or number of fish taken by means of spearfishing.

**Overall Goal:** Maintain benefit of existing MPA - provide enhanced recreational consumptive and non-consumptive experience through an MPA that does not allow commercial harvest of anything other than kelp. This area will likely benefit from the existence of SMRs on either side, which may further enhance the recreational experience at this MPA.

**Socio-Economic Considerations:** Existing MPA has been reduced in size to open up soft bottom area to the south of Stillwater Cove to squid fishing. This is expected to result in a benefit to commercial fishing interests over existing conditions and to offset any impacts to the squid fishery that may result from expansion of Point Lobos SMR to Yankee Point.

### **Point Lobos State Marine Reserve**

**Fishing Regulations:** No take. Current regulations at Point Lobos limiting diver access do not apply to new areas covered by this proposal but would remain in effect for exiting SMR area.

**Overall Goal:** Expand existing small SMR at site with exceptionally high species and habitat diversity and, in combination with the proposed Point Lobos SMCA, improve protection of a broader range of ecological values. Enhance non-consumptive interests at site with particularly high natural heritage values. Improve protection for species of concern including southern sea otters, marine mammals (several haul-outs and a rookeries in the area), seabird colonies (over

200 species have been identified at Point Lobos and the area is in the top 20<sup>th</sup> percentile for seabird density and diversity). This area also provides habitat for a high diversity of fish and invertebrates including large rockfishes, lingcod, cabezon and greenlings and is in the top 20<sup>th</sup> percentile for fish density. Habitats protected include granitic rocky reef, kelp forest, surfgrass, pinnacles, sandy and rocky intertidal, and submarine canyon head. In combination with the proposed Point Lobos SMCA, this site would extend some level of protection across all of the depth ranges identified by the SAT: 0-30 m, 30-100m, 100-200 m, >200 m.

**Socio-Economic Considerations:** Conservation interests would be better served by a SMR that extended offshore to the state 3 mile limit and encompassed at least 6 miles of shoreline (as suggested by the MPF Science Guidelines). However, we withdrew our proposal for an SMR meeting those parameters and accepted the fishing community's proposal for an SMCA offshore of a SMR (and reduced the shoreline extent of the proposed SMR) in an effort to accommodate concerns raised by fishing representatives on the RSG. Furthermore, the boundary of the proposed expansion of Point Lobos SMR was drawn intentionally to prevent impacting the spot prawn fishery that occurs at approximately the 60-fathom line along the edge of Carmel Canyon. Salmon and albacore fishing would be allowed within the SMCA. Continued recreational fishing opportunities exist inmost of Carmel Bay as well as south of Malpaso Creek. Commercial fishing could continue in adjacent areas with similar habitat (from Cypress Point to Point Joe and south of Malpaso Creek to Point Sur). Increasing protection at this site optimizes socio-economic benefits by enhancing recreational and non-consumptive values in area with especially high natural heritage value. Wildlife watchers, divers, researchers and kayakers would benefit from the proposed SMR expansion. Point Lobos is a top beach entry non-consumptive SCUBA dive destination. Yankee Point is a top SCUBA destination for charter boats.

### **Point Lobos State Marine Conservation Area**

**Fishing Regulations:** Take of all living marine resources prohibited except take of salmon and albacore and take of spot prawns by trap.

**Overall Goal:** Provide SMCA buffer to proposed SMR, extend some level of protection into deeper water habitat, improve protection of benthic species and most forage species, while allowing continuation of salmon, albacore, and spot prawn fisheries in an effort to minimize socio-economic impacts. We remain concerned that spot prawn traps may result in bycatch of benthic species (and even cetaceans) that this SMCA is designed to protect. We hope that this area will serve as a comparison for monitoring purposes with similar habitats protected in the Point Sur SMR, which may allow some analysis of any potential impacts associated with prawn trapping and/or salmon and albacore fishing in an otherwise protected MPA.

**Socio-Economic Considerations:** See above for Point Lobos SMR.

## **Point Sur to San Martin**

### **Overall Goal for Sub-Region:**

- Protect high quality and diverse habitat including the unique Point Sur Shelf and the finger submarine canyon features off of Big Creek as well as representative rocky intertidal, rocky reef, sandy bottom, kelp forest and submarine canyon habitats characteristic of the Big Sur coastline.
- Enhance the natural heritage values of the spectacular Big Sur area including the iconic Point Sur headland by protecting some of this area in an SMR.
- Site SMRs that meet the SAT Guidelines on size and offshore extent and can effectively contribute to an ecological network.
- Enhance the scientific effectiveness of the tiny existing Big Creek SMR and buffer with SMCA where limited pelagic fishing and spot prawn trapping are allowed to facilitate scientific monitoring and comparison.
- Provide relatively high level of SMR protection in section of the CCSA that is most remote from port and receives least amount of fishing effort in an effort to provide meaningful improved conservation with least socio-economic impact.

**Development and Evolution of Proposal:** Our proposals for MPAs in Big Sur have changed significantly over time in response to concerns raised by RSG members. Because of its relative remoteness from ports, the Big Sur coastline receives far less fishing effort than other areas closer to Monterey and Morro Bay. Therefore, this section of coastline provides an excellent opportunity to provide significant improved protection with less relative impact to users. Several area scientists have identified Point Sur as a uniquely diverse and healthy habitat and as an area whose values cannot be substituted for alternative sites. In response to concerns raised by fishing interests on the RSG, we have reduced the size of the SMR proposed for Point Sur. In direct response to concerns raised by fishermen, Package 2 avoids MPAs at the head of Partington Canyon and allows fishing for spot prawns in the Big Creek SMCA. We have eliminated an earlier proposed SMR at Salmon Creek. Furthermore, we did not propose MPAs at other ecologically important Big Sur coast headlands such as Lopez Point and Cape San Martin in recognition of the fact that these areas are important fishing grounds that are used by the same stakeholders that would be affected by our proposed SMRs at Point Sur and Piedras Blancas. We have thus tried to ensure that any fishing activity potentially displaced by SMRs in this sub-region would have extensive high quality remaining areas open to use.

## **Point Sur State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Protect area of particularly high species diversity (in top 20<sup>th</sup> percentile for fish density and diversity and for seabird diversity) associated with an upwelling cell in the lee of a major headland. Protect a wide variety of unique high quality habitats including the most persistent kelp bed in the Central Coast, rocky reef and soft bottom across a wide range of depths (0-30 m, 30-100 m, 100-200 m), the head of Sur Canyon, and a large freshwater plume and small estuary at the Big Sur River mouth. This site also provides ecological connections to significant offshore features (greater Sur Canyon and Sur Platform). Protect upwelling area with unique

gyre effects (currents carry water and larvae both north and south from the point). The proposed Point Sur SMR qualifies as an area with a “unique combination of habitats types” and is an example of “marine areas off headlands with adjacent upwelling centers, especially those with kelp forests and rocky reef in retention areas in the lee of the upwelling center.” The Regional Profile identifies such areas as having regional biodiversity significance. Regional Profile at 31. This site was proposed for protection in the Draft Initial Concepts. The proposed SMR contains existing CCAMP, PISCO and MARINE monitoring sites (intertidal and subtidal) with baseline data available.

**Socio-Economic Considerations:** Point Sur’s high quality habitat and healthy rockfish populations make it an attractive spot for winter weekend trips by CPFV operators and commercial rockfish fishing (both nearshore live fish and deepwater long line). However, Point Sur’s distance from port and frequent heavy wind conditions result in far less frequent use of the this area as compared to extensive rocky reef areas closer to Monterey and Morro Bay harbors. Although the proposed SMR would displace the existing fishing that occurs in this area, given the relatively few fishermen affected and the limited number of days this area is fished, overall, impacts are expected to be very small. Furthermore, the deepwater portions of this SMR are within the non-trawl and recreational RCAs. Given the exceptionally high ecological and natural heritage values associated with this site, SMR protection would optimize socio-economic benefits.

### **Julia Pfeiffer Burns State Marine Reserve**

**Fishing Regulations:** Take of all living marine resources is prohibited.

**Overall Goal:** Protect submarine canyons and other deepwater habitats in SMR that meets the MPF Science Guidelines for preferred size. Improve protection at existing underwater park recognized for its high natural heritage values. In combination with the Big Creek SMR and the Big Creek SMCA, this site is designed to provide some level of protection to rockfish species over a 10-mile area of coastline.

**Socio-Economic Considerations:** This SMR was designed specifically to address concerns raised by the RSG representative of the spot prawn fishery. Our earlier proposals called for expanding the Big Creek SMR and siting an SMCA at this location. However, in direct response to a request by RSG member Tom Hafer, we have reversed the location of the SMCA and SMR.

### **Big Creek State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Provide improved protection (by increasing size of small existing SMR (established in 1994) adjacent to terrestrial reserve. Protect diverse range of habitats including high quality intertidal at Gamboa Point, wash rock and boulder intertidal areas, rocky reef and soft bottom areas across all depth ranges (0-30 m), Giant Kelp and surfgrass beds. Enhance protection of site with CCAMP and PISCO monitoring sites and existing baseline data available.

In combination with the Julia Pfeiffer SMR and the Big Creek SMCA, this site is designed to provide some level of protection to nearshore rockfish species over a 10-mile area of coastline.

**Socio-Economic Considerations:** This SMR is limited in depth and buffered with an adjacent SMCA in an effort to minimize socio-economic concerns. In addition, extensive areas of similar habitat to both the north and the south of the proposed SMR would remain open to fishing.

### **Big Creek State Marine Conservation Area**

**Fishing Regulations:** Take of all living marine resources is prohibited except spot prawn trap and take of salmon and albacore allowed in waters deeper than 50 meters.

**Overall Goal:** Provide improved protection to deepwater and submarine canyon habitat and benthic species of concern. Provide replicate for Julia Pfeiffer Burns SMR to allow comparison of SMR to adjacent SMCA allowing limited pelagic fishing and spot prawn trapping.

**Socio-Economic Considerations:** This SMCA was designed specifically to address concerns raised by the RSG representative of the spot prawn fishery. Our earlier proposals for MPAs on the Big Sur coast did not allow spot prawn trapping out of concerns regarding bycatch of other benthic species in the prawn traps. In response to concerns raised by fishermen, the proposed Big Creek SMCA would allow spot prawn trapping while still providing some protection for rockfish and other species found at depths either shallower or deeper than spot prawn traps are typically set. Given the narrowness of the Continental Shelf off the Big Sur coast, the area of this SMCA that will be subject to trapping is quite small.

### **San Martin to Point Estero**

#### **Overall Goal for Sub-Region:**

- Protect high quality representative habitats including the unique habitat and species diversity found at Piedras Blancas.
- Protect exceptional natural heritage site at Piedras Blancas and site SMR adjacent to land based protection (State Parks) with high visitation, docent presence, excellent public access and interpretive facilities.
- Site SMR that meets the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network.
- Improve recreational fishing opportunities at site of oldest fishing club in California.
- Provide a mix of MPAs specifically designed to enhance recreational and research opportunities and provide an opportunity to compare open, recreationally fished, and closed areas with similar habitat.

**Development and evolution of proposal:** The MPAs proposed for this sub-region were developed based on the DFG Draft Initial Concepts, input from scientists who have studied and monitored this section of coastline for decades, and the Cambria area recreational fishing community and broader public. These MPAs are designed as a package to meet the needs of multiple stakeholders and specifically to focus the majority of the protection between Morro Bay

and Big Sur at sites that are relatively distant from the Morro Bay and Port San Luis fishing harbors. In direct response to the request by fishermen and harbormaster RSG representatives that MPAs be sited away from port where possible, we did not proposed any MPAs adjacent to Morro Bay or in the area from Avila Point to Purisima Point. These areas are not currently subject to limitation under the recreational RCA and have historically been subject to considerable recreational fishing effort. Regional Profile maps 8 & 9.

### **Piedras Blancas State Marine Reserve**

**Fishing Regulations:** No take.

**Overall Goal:** Protect natural heritage site with high species and habitat diversity and excellent educational value. Like Point Sur, Piedras Blancas is extraordinarily rich biologically, with both types of kelp (Bull and Giant); exceptional seabird diversity (over 250 species), and extensive marine mammal populations including a significant elephant seal haul-out. Reduce disturbance impacts associated with fishing vessels (noise, lights and gear entanglement). This area contains diverse shoreline habitats including sandy beach and dunes, gravel beach, cobble beach, rocky shelf, and rocky headlands. The proposed SMR also contains a lagoon at Arroyo de la Cruz (steelhead habitat) and prime offshore habitat for large rockfish in an area that historically supported populations of large, sexually mature rockfish and thus presents a good opportunity for restoration of depleted species. The proposed SMR would be large enough (7 miles of shoreline and 22 square miles in area) and protective enough to serve as an effective component of an ecological network. This area has extensive baseline monitoring data going back decades.

**Socio-Economic Considerations:** Both the Morro Bay CPFV and live fish fishery use this area. However, similar habitat is available for fishing both closer to the harbors and to the north of the proposed SMR. Recreational fishing opportunities would be enhanced in the nearby Cambria State Marine Park (SMP). The Piedras Blancas area is increasingly important for tourism as a major viewing area for of California elephant seals, harbor seals, California sea otters, bird watching, whale watching. SMR status would contribute to attraction as a destination eco-tourist site, thus optimizing socio-economic benefits.

### **Cambria State Marine Park**

**Fishing Regulations:** No commercial take.

**Overall Goal:** Enhance recreational small boat, kayak, and spear fishing opportunities in a high quality habitat area that has historically been most important for recreational users but has been depleted by the commercial livefish fishery in recent years. The proposed SMP would allow this area to recover from commercial fishing impacts and provide valuable replicate habitat to Ken Norris SMR for comparing a recreationally fished and unfished MPA. The proposed SMP has good public access including parking, restroom facilities, campgrounds, and a small boat access point at Leffingwell Landing. Lampton Park could provide interpretive facilities for this SMP and the adjacent SMR.

**Socio-Economic Considerations:** The proposed SMP was developed in coordination with

local recreational fishermen and would have minimal negative socio-economic impacts due to the historically low participation in the live nearshore fishery, availability of comparable habitat in adjacent areas to the north and south and allowance of salmon and albacore fishing in the adjacent SMCA. The SMP would optimize socio-economic benefits for kayaking, diving, recreational fishing and tourism. In addition to being a popular local site for small skiff recreational fishing, this area is used by spear fishermen (Regional Profile Map 10b) and kayak fishers from northern and southern California (Kayak Fishing Association of Southern California). Compared to areas closer to Morro Bay and Port San Luis, this area has received less heavy fishing effort (Regional Profile Maps 8 & 9). We have reduced the size of this MPA.

### **Ken Norris State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Protect and replicate representative habitats (including underrepresented habitats) and the species that depend on them in a SMR that could serve as a focal site for an MPA monitoring program. Site would also serve as “control” for adjacent Cambria SMP to allow study of impacts of recreational fishing. This proposed SMR is located adjacent to University of California Natural Reserve (terrestrial) that provides extensive educational and particularly research opportunities and regularly hosts university students and researchers. The site is already used for a variety of monitoring and other research projects. PISCO has ongoing intertidal and subtidal monitoring sites in this area. The MARINE program has a study site within this proposed SMR that monitors species of algae and invertebrates. DFG has baseline data on fish abundance in this region from periodic research cruises since 1982.

**Socio-Economic Considerations:** The small size of the proposed SMR (3.5 miles long 7.87 square miles in area, the availability of fishing opportunities in similar habitats to the north and the south. Compared to areas closer to Morro Bay and Port San Luis, this area has received less recreational fishing effort (Regional Profile Maps 8 & 9).

### **Estero Bluffs State Marine Reserve**

**Fishing Regulations:** No take.

**Overall Goal:** Protect intertidal habitat and associated biological communities and enhance educational values at site with high benthic invertebrate diversity. The proposed SMR is adjacent to Estero Bluffs State Park, has excellent public access and provides educational opportunities for local community.

**Socio-Economic Considerations:** This tiny proposed SMR was designed specifically to avoid potential socio-economic impacts based on its small size (only one mile) and shallow offshore extent (only three foot depth). The proposed SMR includes only the most remote one-mile shoreline in a four-mile long beach.

### **Point Estero to Santa Maria River**

#### **Overall Goal for Sub-Region:**

- Protect outstanding representative habitat including pinnacles and nearshore hydrocoral features at Point Buchon.
- Site SMR that meets the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network that takes advantage of extensive baseline and ongoing monitoring data associated with the Diablo Canyon Power Plant's northern control site located 1.2 miles down coast of Point Buchon and 2 miles up coast of Lion Rock.
- Protect and replicate coastal estuary habitat at Morro Bay Estuary and enhance non-consumptive recreational experience in this area.

**Development and evolution of proposal:** The proposals for this sub-region are based on proposals in the Draft Initial Concepts, discussions with scientists familiar with this area of the coast including former DFG staff and environmental consultants who have monitored the power plant, and discussions with local community members and stakeholders including the director of the Morro Bay Estuarine Reserve. Proposals to include the entire Morro Bay Estuary in an SMR and to extend the Point Buchon SMR to the three-mile state limit were scaled back to better accommodate fishing.

### **Morro Bay State Marine Conservation Area**

**Regulations:** No commercial take except mariculture allowed.

**Overall Goal:** The proposed SMCA would essentially allow the continuation of current fishing activities in the center of the Estuary but not allow any substantial increased in impacts over the existing levels.

**Socio-Economic Considerations:** The proposed SMCA is not expected to result in any significant impacts.

### **Morro Bay East State Marine Reserve & Morro Bay South State Marine Recreational Management Area**

**Fishing Regulations:** No take. Hunting of waterfowl is allowed in the State Marine Recreational Management Area.

**Overall Goal:** Protect salt marsh, intertidal mud flats; eel grass beds, wetlands and freshwater plumes. Eelgrass habitat is identified in the Gap Analysis as being underrepresented in existing MPAs and seagrass beds are specifically called out for protection in the MLPA itself. Protect diversity of species including seabirds, steelhead, skates, bat rays, leopard shark, mud shrimp, ghost shrimp, and clams. Protect nursery ground, forage and resting habitat.

**Socio-Economic Concerns:** Conservation interests would be better served by a SMR that encompassed and protected the entire Morro Bay Estuary. The proposed combination of two

smaller no-take area and a central SMCA was designed to address the concerns of consumptive stakeholders and reflects a compromise that largely avoids impacting existing users. The small SMRs would benefit conservation, education, and non-consumptive recreational interests, thus optimizing positive socio-economic benefits. Opportunities to recreationally fish in the main channel of Morro Bay would remain open while more vulnerable side channel areas would receive higher levels of protection. These proposals were crafted with the input of the City of Morro Bay, State Parks, RSG fishing and harbormaster representatives, hunters.

### **Point Buchon State Marine Reserve**

**Fishing Regulations:** No take.

**Overall Goal:** Protect outstanding and diverse habitat including kelp bed, pinnacles and rare Shallow water hydrocorals. The proposed SMR is within top 20<sup>th</sup> percentile for fish and seabird density and has a high density of sea otters. Over 800 taxa have been documented in this area by studies performed by Tenera Environmental as part of the Diablo Canyon Power Plant licensing requirements. Including the northern “control”-monitoring monitoring site for the power plant within the SMR provides an excellent source of extensive baseline and ongoing monitoring data. Past research and data sets include a comprehensive marine biological and oceanographic study, covering more than two decades, which included both subtidal and intertidal studies to identify and enumerate fishes, invertebrates, surfgrasses, and algae. The proposed SMR would be large enough and protective enough (in combination with the associated high protection level Point Buchon SMCA) to serve as an effective component of an ecological network.

**Socio-Economic Considerations:** The proposed SMR is located in the northern half of the area between Avila and Point Buchon in an effort to protect outstanding habitat while maintaining open access to the more heavily fished adjacent area between Avila and the power plant. Regional Profile Maps 8 & 9. Fishermen from Morro Bay can still access the waters to the south of the power plant as well as similar habitat to the north of Morro Bay. Proposals to “recognize” the existing security closure adjacent to the power plant would not achieve the ecological goals of this SMR as the security closure is within the zone of influence of the power plant’s thermal discharge and entrainment. Allowing salmon and albacore fishing offshore in the proposed SMCA would also reduce potential socio-economic impacts. We have reduced the size of the Buchon MPAs.

### **Point Buchon State Marine Conservation Area**

**Fishing Regulations:** No take of living marine resources except fishing for salmon and albacore allowed.

**Overall Goal:** Provide SMCA “buffer” to extend protection for offshore and deepwater species and habitats associated with the Point Buchon SMR.

**Socio-Economic Considerations:** See above for Point Buchon SMR.

### **Santa Maria River to Point Conception**

#### **Overall Goal for Sub-Region:**

- Protect representative habitat and associated biological communities (especially rocky reef) in SMRs that meet the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network
- Protect important seabird and marine mammal forage areas and forage species.
- Protect portion of oceanographic transition zone in SMR and link to Channel Islands MPAs.

**Development and evolution of proposal:** The MPAs proposed for this sub-region were developed based on the DFG Draft Initial Concepts, and input from scientists, managers and recreational fishermen familiar with this area. An earlier proposal to include more shoreline around Purisima Point in MPA protection (via a combination of SMR and SMP) was abandoned in response to concerns raised by the fishing community about unduly limiting access to rocky reef habitat in this southern sub-region.

### **Purisima Point State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** Protect representative hard bottom and sand habitat that is critical to the wide diversity of fish, invertebrate and seabird and marine mammal populations found in this area. The proposed SMR contains a wide variety of nearshore rockfish, rocky reef species, intertidal invertebrates, pelagic fishes, seabirds and marine mammals. The proposed SMR site would protect vital habitat and prey for commercially important fish and invertebrate species as well as the top predators that prey on them. Purisima Point itself provides vital roost/haul-out habitat for seabirds and marine mammals as well as important foraging habitat for thousands of shorebirds, the kelp beds found in waters leeward of the point provide critical foraging habitat for southern sea otters.

**Socio-Economic Considerations:** The proposed SMR is designed to leave the area around Point Sal (which is more easily accessible from port and therefore more heavily fished) open to fishing activities. A larger SMR encompassing both the north and south side of Purisima Point would be preferred from a conservation perspective but was not proposed, in an effort to accommodate all interests. We have reduced the shoreline extent of proposed MPA protection in this area (to 5.8 miles) in response to concerns raised by the fishing community. All of the rocky reef to the north of the Point would remain open to fishing.

### **Arguello State Marine Reserve**

**Fishing Regulations:** No-take.

**Overall Goal:** This site is on one of the two major bioregion breaks in the State. The goal of this proposed MPA is to provide additional protection to habitats and biological communities associated with both sandy and rocky bottom, located at the confluence of the California Current

and the counter-current in the southern California Bight. Like upwelling centers, headlands, and submarine canyons – only even rarer – bioregion breaks represent unique habitats with an abundant and diverse biological assemblage. Point Arguello is an area of extraordinary diversity, uniqueness, and importance. The proposed SMR would help produce larvae and adult fish that could enter the current that bathes the northern Channel Islands and the Channel Island MPA network, thus directly contributing to an effective statewide MPA network.

**Socio-Economic Considerations:** The proposed SMR replaces an earlier proposal for a SMR at Point Conception and is designed to reduce impacts to the squid fishery associated with the Conception SMR. The modest size of this SMR is designed to reduce potential impacts. Areas beyond one mile from shore are also left open to fishing.